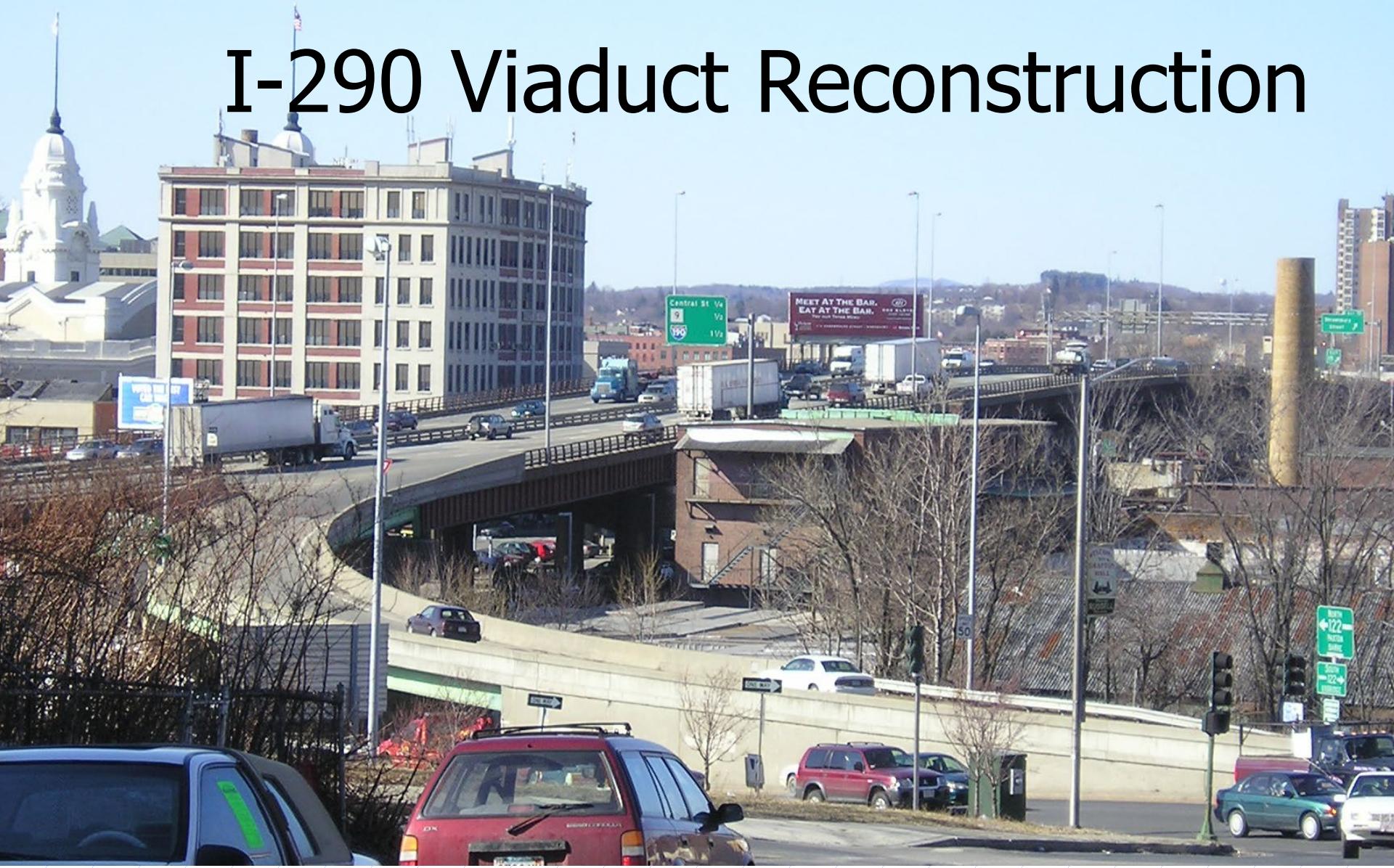


Bridge Rehabilitation W-14-082 Interstate  
290 over CSX Railroad and 4 City Streets

# I-290 Viaduct Reconstruction

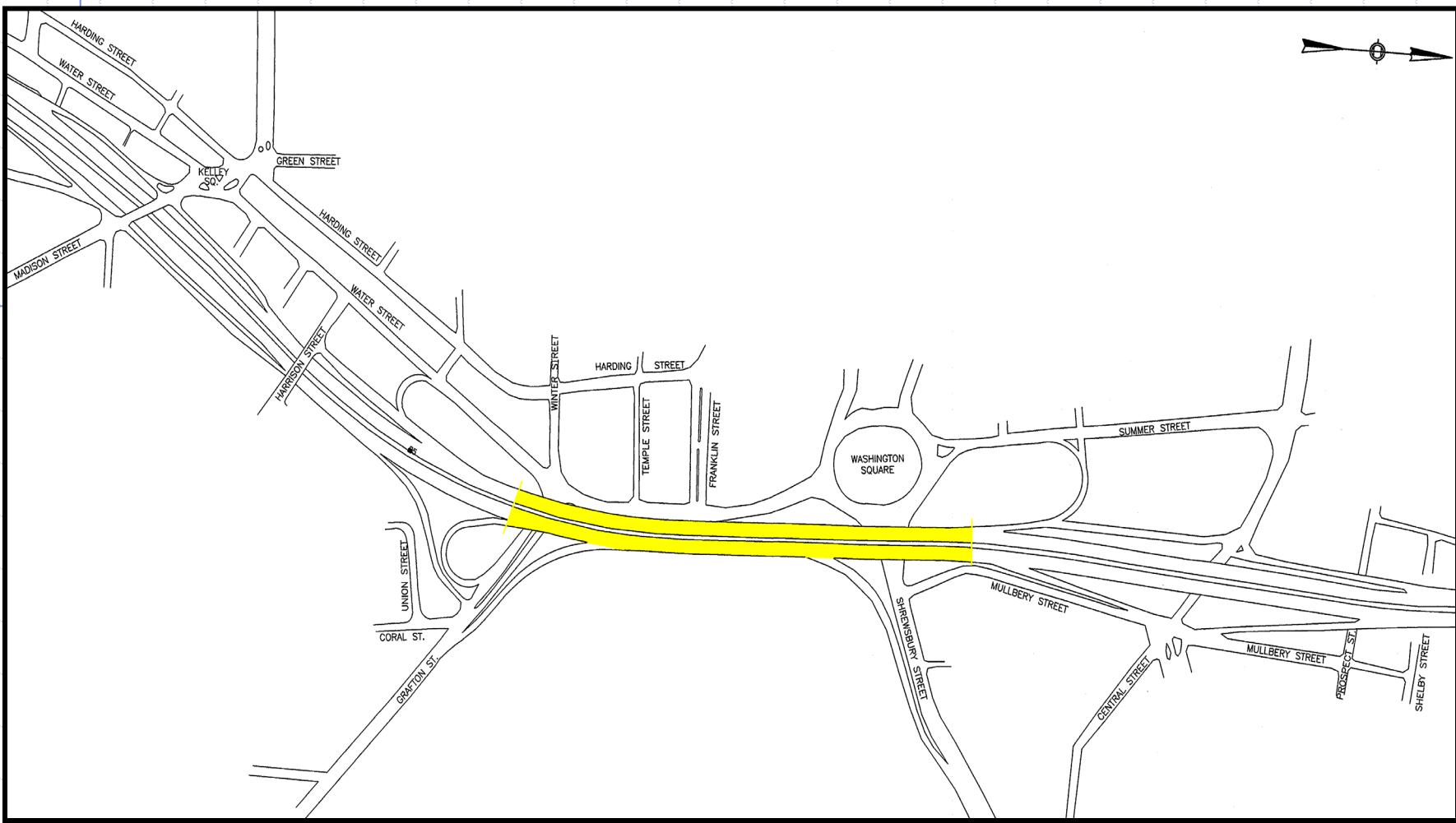


# What does the project consists of?

\$16.5 Million project to rehabilitate the bridge structure carrying I-290 over:

CSX Railroad  
Grafton Street  
Franklin Street  
Shrewsbury Street  
Access road to commuter parking lots

# Overview of Affected Area



# Bridge Attributes

- Consists of 11 spans
- 1550 feet in length
- Four lanes in each direction (3 travel lanes)
- Carries 120,000 vehicles on an average day
- Major regional roadway
- Used heavily for intra-city trips
- Built in 1958 (therefore it is 46 years old)
- It has reached the end of its useful life

# What is wrong with the bridge?

- Bridge deck is severely deteriorated and saturated with salt.
- Steel I-Beams are undersized for today's heavy trucks.
- Damaged expansion joints have led to deterioration of concrete in the substructure.
- Bridge railing does not meet current standards.
- Cost to repair and maintain the bridge is becoming uneconomical.

# Ramifications If Project Is Not Done

- Could potentially reduce travel lanes to reduce loading.
- Increase the posting and restrict truck traffic from I-290.
- Could lose a section of the bridge.
- Could lead to more extensive/expensive substructure repairs.

In other words –

*This issue has to be addressed!*

# How are we going to fix the bridge?

- Completely demolish the existing deck and railings.
- Clean and paint structural steel at critical areas to protect against future corrosion.
- Reinforce the steel I-beams with steel plates and other structural retrofits.
- Repair concrete substructure.
- Provide new deck.
- Provide new railing.
- Provide new expansion joints.

# **The Big Question**

**How are we going to keep  
traffic moving while we  
rebuild the bridge?**

# Construction Staging Plan

- 2 stages of construction
- Construct the bridge in halves
- Bridge consists of 2 separate structures, 1 eastbound and 1 westbound
- Construct one structure at a time
- Use remaining structure to carry 2 lanes of traffic in each direction
- Close Shrewsbury Street off-ramp (phase 1)
- Close both Grafton Street on-ramps and Summer Street on-ramp (both phases)

# Construction Staging Plan (cont.)

Phase 1: Spring 2004 to Fall 2004  
All I-290 lanes and ramps open from Fall 2004 to Spring 2005

Phase 2: Spring 2005 to Fall 2005  
Fall 2005 – substantial completion – all ramps and lanes open

Phase 3: Work on bridge substructure  
(no impact on 290 traffic – little impact on local traffic)

**Total of approximately 14-16 months of impact**

# Getting the Word Out

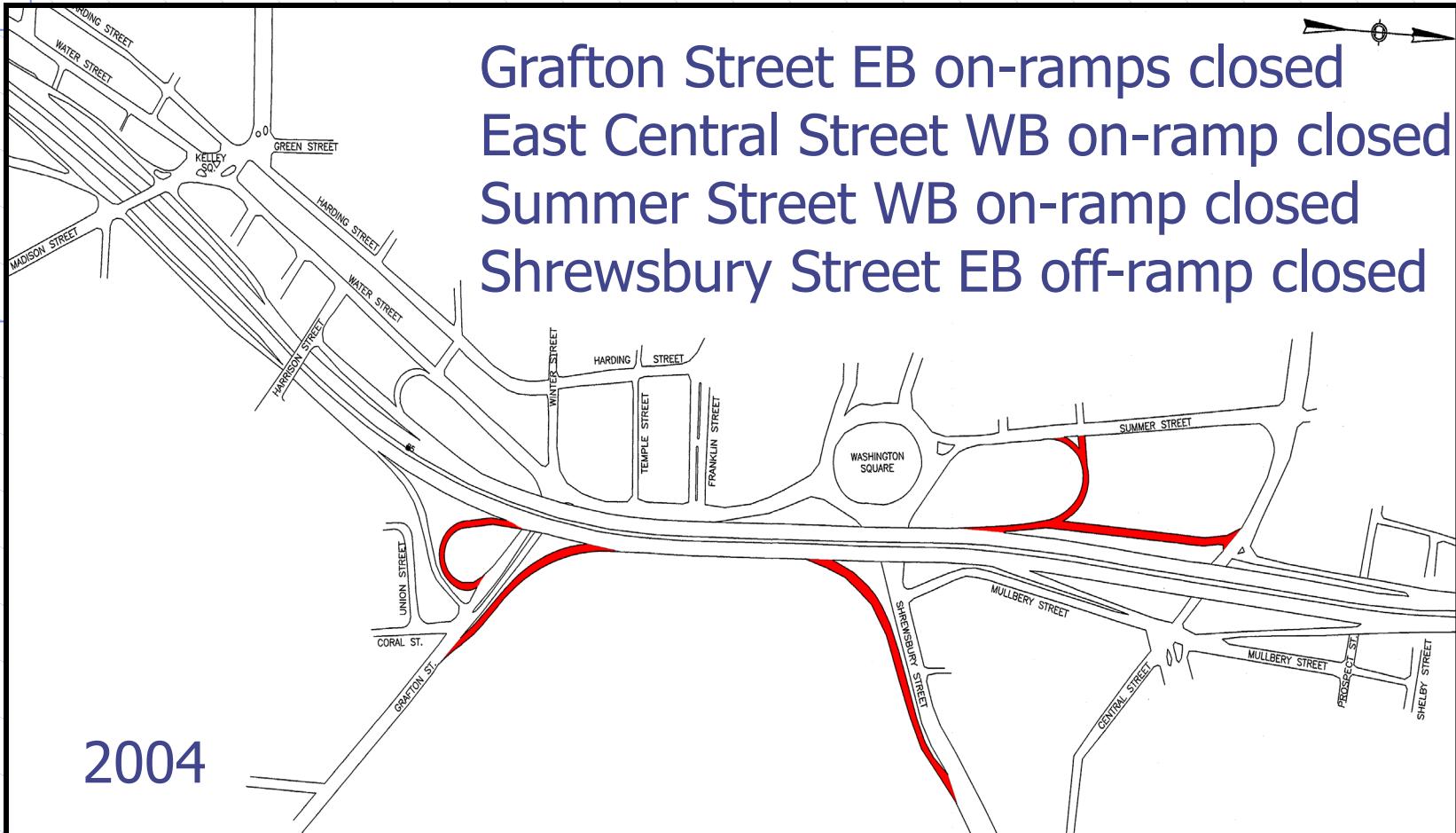
- Media campaign to encourage alternate routes
  - Local cable channel
  - Local newspaper
  - Local radio
  - Hotline – 508-752-8765
  - City and MassHighway websites
- Regional and local signage to encourage alternate routes – coordinate with City officials
- Monthly CAC meetings – if necessary

# Parking

- Coordinate with City on parking beneath I-290
- Rotating impacted areas
- Identify alternate locations for parking

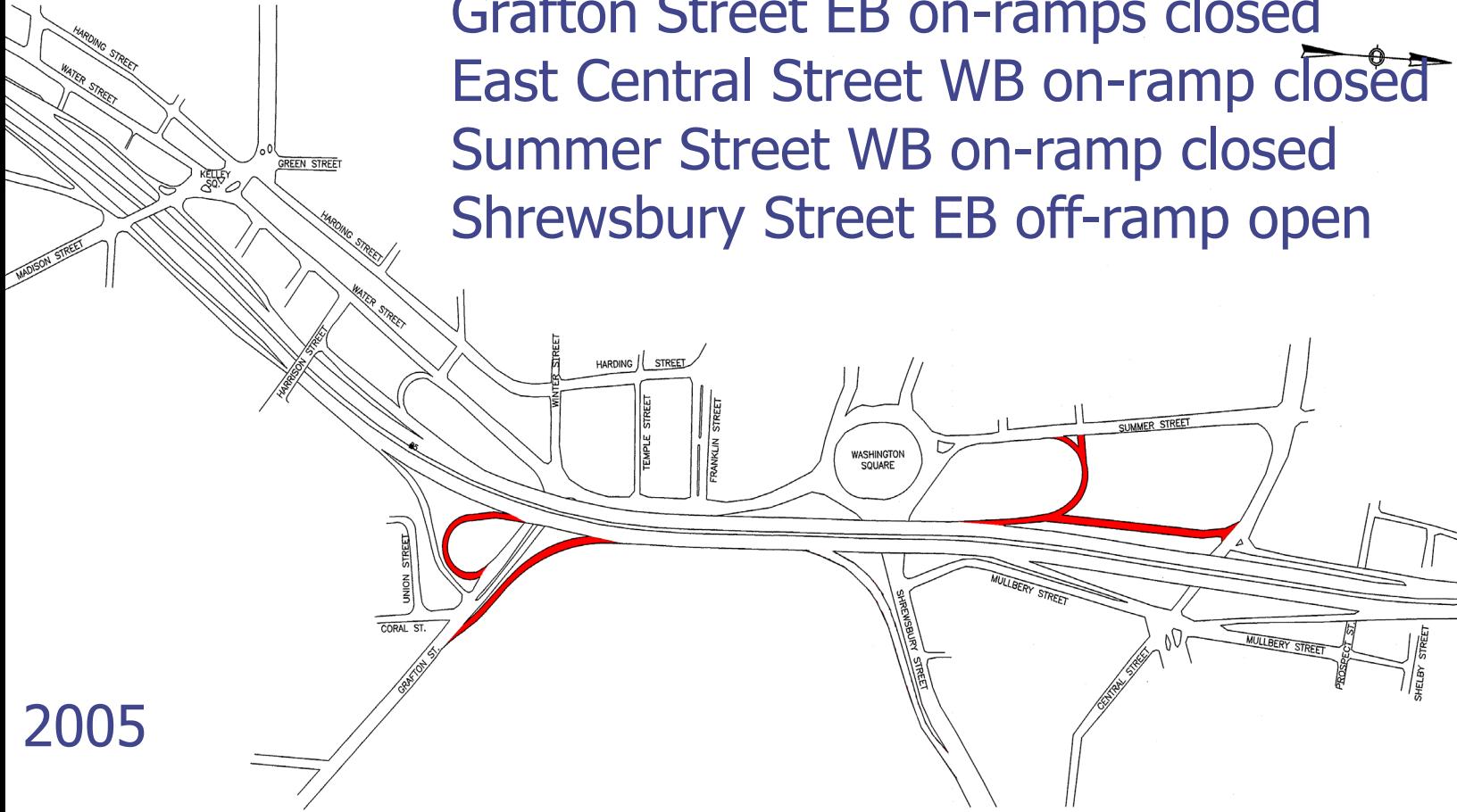
# Ramp Closures & Detour Routes

# Ramp Closures – Stage 1



# Ramp Closures – Stage 2

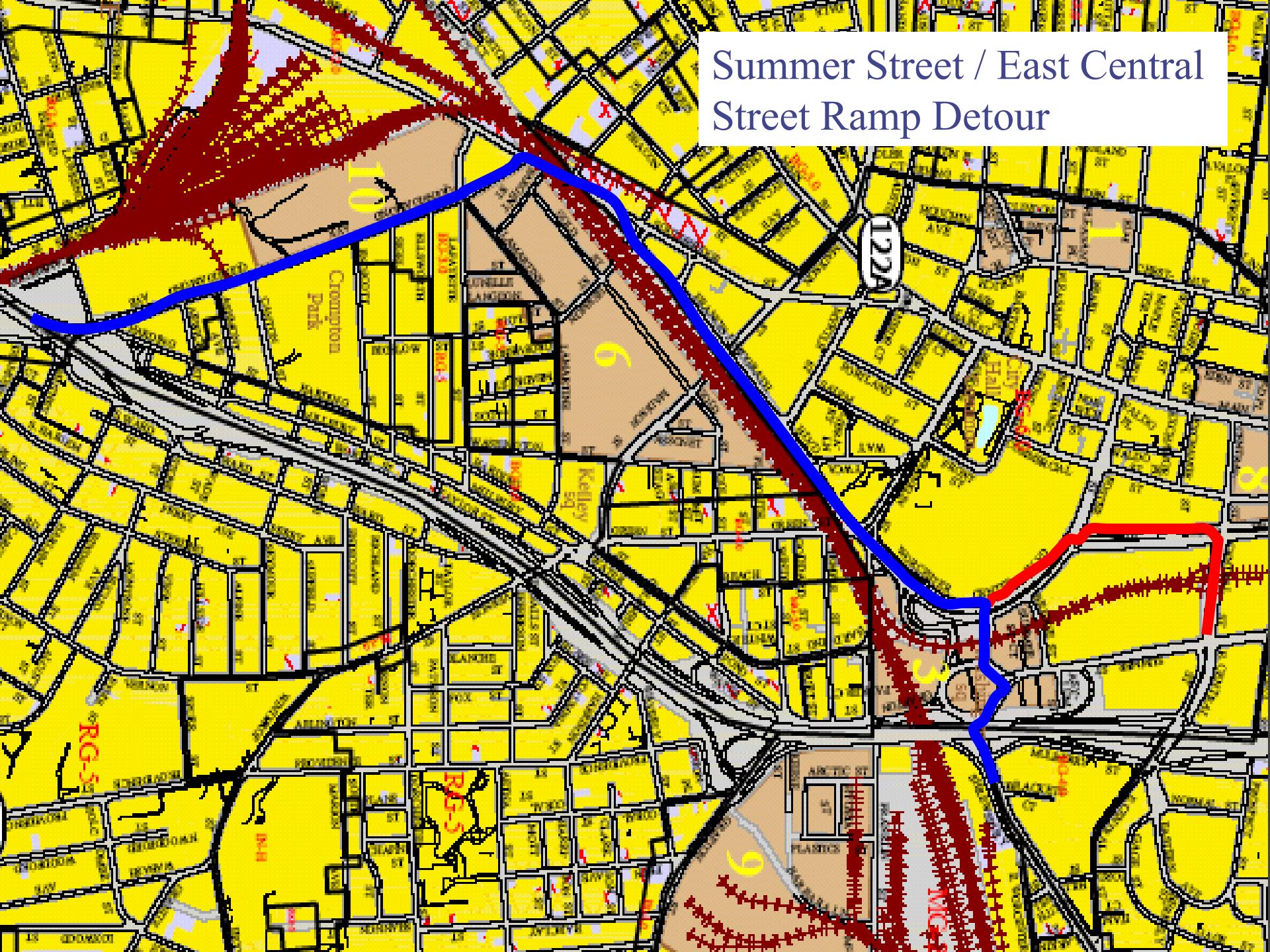
Grafton Street EB on-ramps closed  
East Central Street WB on-ramp **closed**  
Summer Street WB on-ramp closed  
Shrewsbury Street EB off-ramp open



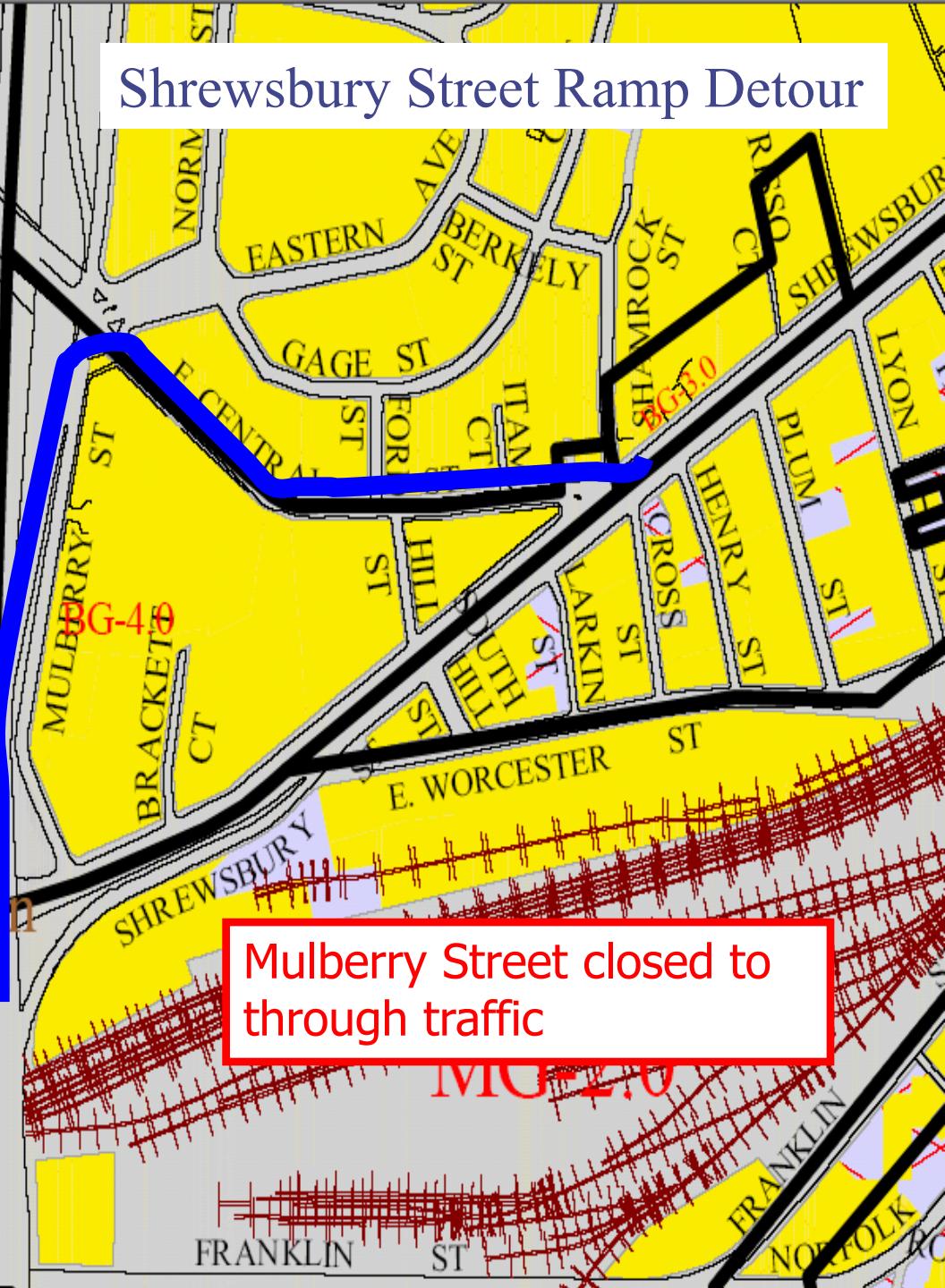
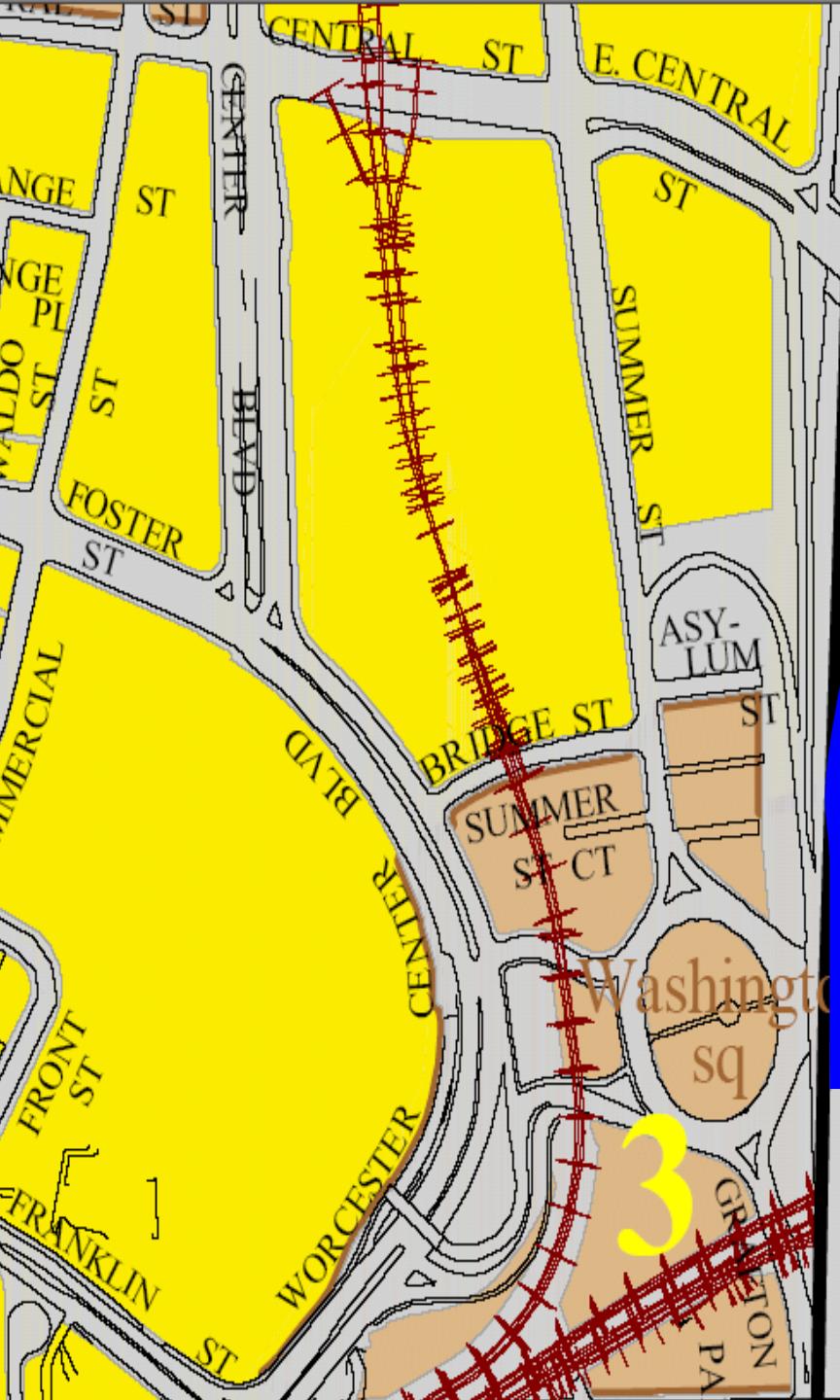
# Grafton Street Ramp Detour

9

# Summer Street / East Central Street Ramp Detour



# Shrewsbury Street Ramp Detour



Mulberry Street closed to  
through traffic

# On To Construction

•Construction starts April 12<sup>th</sup>.